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MAIL STOP: AF on April 29, 2008

TOWNSEND and TOWNSEND and CREW LLP

By: / Matthew T. Sarles /
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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Marc Le Metais

Application No.: 10/825,884

Filed: April 16, 2004

For: Plant and Process for Liquefying Natural Gas

Customer No.: 20350

Confirmation No. 8608

Examiner: John F. Pettitt

Technology Center/Art Unit: 3744

PRE-APPEAL BRIEF
REQUEST FOR REVIEW

Attorney Docket No.: 040183-000300US

**MAIL STOP: AF** 

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Applicant requests review of the final rejections dated October 29, 2007 (the "Office Action") for the above-identified application. A response after-final has been filed in this application, the amendments made in that response have been entered per the Advisory Action dated April 22, 2008. No amendments to the claims are being filed with this request.

This request is being filed with a Notice of Appeal.

The review is requested for the reasons stated herein.

## Remarks

Claims 3 and 13

Claims 3 and 13 stand rejected as being obvious over Voort. Additionally, the Office Action also appears to incorporate cited portions of U.S. Patent No. 6,647,744 to Fanning et al. ("Fanning") as teaching or suggesting certain recitations not taught or suggested by Voort. Office Action, p. 6. Because Voort and Fanning do not teach or suggest all of the recitations of

claims 3 and 13, nor have such recitations been shown to have been known in that art at the time of the invention, Voort and Fanning cannot establish a prima facie case of obviousness with respect to these claims.

Claim 3 recites, in part, "at least two additional circuits for removing heat from the main refrigerants in each of the main refrigerant circuits, where the additional circuits are separate from the pre-cooling refrigerant circuit such that said additional circuits do not exchange heat with the pre-cooling refrigerant circuit[.]" Claim 13 includes substantially similar recitations.

The Office Action correctly states that Voort does not teach or suggest this recitation. Office Action, p. 3. Instead, the Office Action:

- (a) states without citation that such a recitation is commonly known in the art (Office Action, p. 3-4); and/or
- (b) states that Fanning teaches or suggests such a recitation (Office Action, p.6-7).

The first line of reasoning (a) is unsupported and is merely a conclusory statement, and Applicant respectfully requests documentary evidence of such knowledge in the art, if any, pursuant to MPEP §2144.03, if such a reasoning is to remain a grounds to support any rejection.

As to the later line of reasoning (b), Fanning also does not teach or suggest such a recitation. The Office Action cites figure 1 and column 2, lines 24-26 as teaching or suggesting such a limitation. Office Action, p.6. Specifically, as figure 1 does not show additional circuits exchanging heat with the main heat exchange circuits (i.e. elements 23, C2 and R2), the Office Action must be relying more specifically on column 2, lines 24-26 of Fanning as teaching or suggesting the above recitation.

This portion of Fanning discloses "[i]n some cases, the cryogenic heat exchange system utilizes a cascade refrigeration system[.]" It does not describe in any manner whatsoever how they might be implemented with the systems described in either Voort or Fanning.

Such a disclosure does not explicitly or implicitly, much less inherently, describe the additional and detailed recitations above which state that such additional circuits are "for removing heat from the main refrigerants in each of the main refrigerant circuits, where the additional circuits are separate from the pre-cooling refrigerant circuit such that said additional circuits do not exchange heat with the pre-cooling refrigerant circuit[.]"

"To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference ...." MPEP 2112.IV. The detailed recitations in claim 3 and 13 are simply not either explicitly, implicitly, or inherently disclosed by Fanning. The mere mention in a near void that cascade refrigeration systems may be used in heat exchange systems falls well short of teaching or suggesting the very specific recitations in claims 3 and 13.

Thus, Voort and Fanning do not teach or suggest the above recitations, and therefore are insufficient in establishing a prima facie case of obviousness. Such recitations have also not been otherwise shown to have been known in the art at the time of the invention. For at least these reasons, Applicant respectfully requests withdrawal of the §103 rejections of claims 3 and 13.

## Claims 4-7, 9, 11, 15 and 17

Claims 4-7, 9, 11, 15 and 17 each depend, either directly or indirectly, from one of claims 3 or 13, and are therefore believed to be allowable at least by virtue of their dependence from an allowable base claim. For at least this reason, Applicant respectfully requests withdrawal of the rejections of these claims.

## **Conclusion**

For at least all of the foregoing reasons, the Applicant respectfully requests withdrawal of at least the rejections discussed and issuance of a formal Notice of Allowance.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 303-571-4000.

Date: April 29, 2008

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Respectfully submitted,

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